# NATURAL RESOURCES CONSERVATION SERVICE

# CONSERVATION PRACTICE STANDARD

# Stripcropping, Contour

(Acre)

#### **Code 585**

#### DEFINITION

Growing crops in a systematic arrangement of strips or bands on the contour to reduce water erosion. The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop or fallow; or a strip of grass is alternated with a close-growing crop.

#### **PURPOSES**

To reduce erosion and control water.

# CONDITIONS WHERE PRACTICE APPLIES

On sloping cropland and on certain recreation and wildlife land where the topography is uniform enough to permit tilling and harvesting, and where it is an essential part of a cropping system to effectively reduce soil and water losses.

#### **CRITERIA**

- 1. The Universal Soil Loss Equation shall be used to determine adequacy of erosion control with contour stripcropping.
- 2. Obstruction removal:

Fences or other obstruction in fields should be removed or relocated to facilitate the establishment of contour guidelines.

#### 3. Establishment:

a. Areas with established contour guidelines:

Tillage and planting operations should be parallel to diversions, terraces, fences, or other established contour guidelines, provided maximum deviations are not exceeded.

In order to maintain farming operations parallel to terraces, diversions, other established contour lines, or to reach a satisfactory outlet grade may be increased to 3 percent for reaches of up to 100 feet.

b. Area without established contour guidelines:

Strip boundaries should be <u>laid out across</u> the principal slope on or near the general contour with a grade not to exceed 2 percent.

- 4. Contour guidelines for soils with tight subsoils shall be established on a slight grade (0.5 to 1 percent) toward grassed waterways or other stable outlets.
- 5. Contour strips should outlet into a stable outlet such as a waterway, water and sediment control basin, field border or other nonerosive areas and not outlet into end rows where excessive erosion down the slope might be accelerated.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

- 6. Farming operations should start on the strip boundaries and progress toward the center where short rows, if any, should be placed.
- 7. Contour strips shall be established with consideration given to the field and machinery conditions with 10 percent deviation of strip widths permissible (Table 1).

Table 1. Strip Widths

Percent Slope		P Values <sup>1/</sup>		Maximum Strip Width <sup>2/</sup>	Maximum Slope Length <sup>3/</sup>
(%)	A	В	С	(feet)	(feet)
1 to 2	0.30	0.45	0.60	130	800
3 to 5	0.25	0.38	0.50	100	600
6 to 8	0.25	0.38	0.50	100	400
9 to 12	0.30	0.45	0.60	80	240
13 to 16	0.35	0.52	0.70	80	160

#### 1/ P Values:

- A For 4-year rotation of row crop, small grain with meadow seeding, and 2 years of meadow.
- B For 4-year rotation of 2 years row crop, winter small grain with meadow seeding, and 1-year meadow.
- C For alternate strips of row crop and winter small grain.
- 2/ Adjust strip width limit, generally downward, to accommodate widths of farm equipment.
- 3/ Maximum length may be increased by 10 percent if residue cover after crop planting will regularly exceed 50 percent.

# CONSIDERATIONS

# Water Quantity

- 1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, deep percolation and ground water recharge.
- 2. Variability of effects caused by seasonal weather variations.
- 3. Potential for a change in plant growth and transpiration because of changes in the volume of soil water.

# Water Quality

1. Filtering effects of vegetation on movement of sediment and dissolved and sediment-attached substances.

- 2. Effects on erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances that could be carried by runoff.
- 3. Potential for development of saline seeps or other salinity problems resulting from increased infiltration near restrictive layers.
- 4. Effects on the visual quality of downstream water resources.

#### PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for specific field sites based on this practice standard.

### OPERATION AND MAINTENANCE

Operations and maintenance requirements are not applicable for this practice.